NAME _____ DATE _____ PERIOD ____

12-4 Skills Practice

Multiplying Probabilities

A die is rolled twice. Find each probability.

1. P(5, then 6)
2. P(no 2s)
3. P(two 1s)
4. P(any number, then not 5)
5. P(4, then not 6)
6. P(not 1, then not 2)

A board game uses a set of 6 different cards. Each card displays one of the following figures: a star, a square, a circle, a diamond, a rectangle, or a pentagon. The cards are placed face down, and a player chooses two cards. Find each probability.

7. P(circle, then star), if no replacement occurs
8. P(diamond, then square), if replacement occurs
9. P(2 polygons), if replacement occurs
10. P(2 polygons), if no replacement occurs
11. P(circle, then hexagon), if no replacement occurs

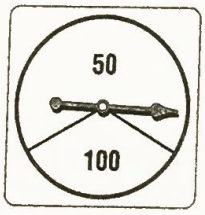
Determine whether the events are *independent* or *dependent*. Then find each probability.

12. A mixed box of herbal teabags contains 2 lemon teabags, 3 orange-mango teabags, 3 chamomile teabags, and 1 apricot-ginger teabag. Kevin chooses 2 teabags at random to bring to work with him. What is the probability that he first chooses a lemon teabag and then a chamomile teabag?

13. The chart shows the selection of olive oils that Hasha finds in a specialty foods catalog. If she randomly selects one type of oil, then randomly selects another, different oil, what is the probability that both selections are domestic, first cold pressed oils?

Type of Oil	Domestic	Imported
Pure	2	5
Cold Pressed	4	8
First Cold Pressed	7	15

For Exercises 14 and 15, two thirds of the area of the spinner earns you 50 points. Suppose you spin the spinner twice.



14. Sketch a tree diagram showing all of the possibilities. Use it to find the probability of spinning 50 points, then 100 points.

15. What is the probability that you get 100 points on each spin?

Lesson 12-4

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12-4

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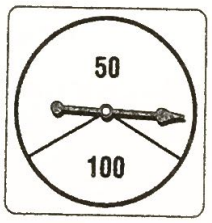

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